Analysis of Fire Services

CITY OF SCOTTSDALE, ARIZONA

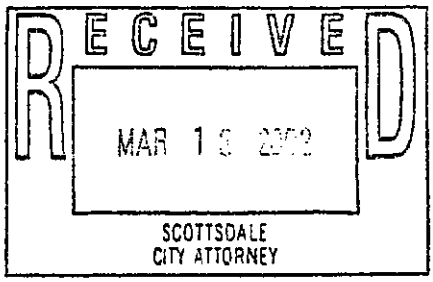

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TABLE OF CONTENTS

INTRODUCTION AND EXECUTIVE SUMMARY

INTRODUCTION

The report, which follows, summarizes the results of five months of data collection and analysis of fire service alternatives for the City of Scottsdale, Arizona, including current services being provided and potential future alternatives. The project team which conducted this study thoroughly reviewed the services currently provided by Rural / Metro, and analyzed potential improvements associated with the current service approaches as well as analyzed the feasibility of the City creating a municipal department. Since the beginning of the study in August, 2001, the study team has conducted its evaluation of fire services in Scottsdale using the following approaches:

- **Maximizing the input of Rural / Metro staff:** During this project, members of the study team interviewed all command staff in Rural / Metro as well as staff with unique responsibilities for program performance. Moreover, many line staff were interviewed throughout the process in group station interviews.

- **Developing input and guidance from the City, including Council members and citizens:** The project team met with City Council members early in the project. The intent of these meetings was to gain insight into historical and service issues related to City fire service needs and capabilities. In addition, input was received from citizens through a survey of about 500 recent recipients of fire service. The results of this survey are contained in Attachment B, at the conclusion of this report. The project team also solicited written and e-mailed input from citizens into the process.

- **Throughout the project, the study team has met with a City-established project steering subcommittee as well as Rural / Metro management staff to review progress and key issues which arose during the process**: There was an internal group of City staff who made up the project steering committee. While the project team met approximately monthly with the committee, the meetings were interim report-driven so that actual products were reviewed.

- **The study team has been heavily involved in detailed data collection and analysis of workloads and service levels which characterize operations and services provided by Rural / Metro**

to the City of Scottsdale: The focus of data collection was to understand fire service workloads and service levels. This data collection was also a base to aid in the formation of possible alternatives available to the City. The principal product of the project team's data collection, a "profile" of services provided by Rural / Metro to the City of Scottsdale is contained as Attachment A, at the conclusion of this report.

The purpose of this study was to evaluate the services currently being provided by Rural / Metro to the City, as well as to identify and analyze fire service alternatives for the future. This study helped to frame these choices through:

- **Analysis of the use of current resources:** A key objective of this project was to assess the effectiveness of the current contractual arrangement the City has with the Rural / Metro. This objective was designed to address the question of whether the current arrangement provides an appropriate structure on which to base future City fire services.

- **Providing the tools to assess current and future needs:** The project team has used a number of methodologies and approaches to evaluate fire service alternatives. Because the needs of the community may change in the future, the project team has attempted to show the methodology needed to recreate this analysis. Part of this evaluation included the use of a computerized fire station location model which can continued to be used to evaluate fire service alternatives.

- **Analysis of the strengths and potential improvements associated with each alternative, at different stages of the process:** Because this study focused on a number of fire service alternatives, it was necessary to illustrate the advantages and disadvantages of each alternative. These alternatives included internal changes to the way in which Rural / Metro provides services as well as the cost effectiveness of creating a municipal department.

This report summarizes the results of these analytical efforts and provides implementation steps which the City should consider when addressing future fire service needs.

EXECUTIVE SUMMARY

This report focuses on the current operations of Rural / Metro the contract provider of fire services in the City of Scottsdale. This report examines several key issues in the delivery of services, specifically:

- Have fire resources been deployed within the City to provide levels of service that correspond to national standards? How are fire services comparably deployed in different areas of the City?
- If there are issues with the current deployment of fire resources (stations, units and personnel) what steps need to be taken to address those issues?
- How will planned future stations impact the delivery of services in the City of Scottsdale?
- Are training, vehicle maintenance, fire prevention, public education and other support services provided at a high level as well?
- Does Rural / Metro have the management systems in place to oversee operations?

MAXIMUS found that, in general, the City is receiving a high level of service under the contract with Rural / Metro. The paragraphs, that follow, provide a summary of our key findings:

- **The City of Scottsdale and Rural / Metro provide high levels of service throughout the City.** The project team conducted an extensive analysis of the delivery of services throughout the City. This analysis has shown that fire services can reach 52% of the entire City in four minutes or less. This is in keep with the national standard recently re–stated in NFPA 1710. This standard applies to both the delivery of fire services as well as the delivery of basic life support (BLS) emergency medical services (EMS).
- **Rural / Metro is meeting initial response time requirements for each area of the City under current conditions.** The project team from MAXIMUS evaluated the ability of the fire service to achieve the performance standards that are described in the current contract. The table, that follows, shows that average response times by Rural ./ Metro are within established response time standards (for the first unit) in all areas of the City:

Response Area	Time	Time Allowed via Contract
Sta. 810 (4 min.)	2:57	4:00
Sta. 810 (5 min.)	4:01	5:00
Sta. 811 (4 min.)	3:29	4:00
Sta. 811 (5 min.)	3:30	5:00
Sta. 812 (5 min.)	4:53	5:00
Sta. 812 (7 min.)	5:33	7:00
Sta. 813	3:31	5:00
Sta. 814	2:50	5:00
Sta. 815	3:15	7:00
Sta. 816	4:50	7:00
Sta. 818	6:19	7:00
Sta. 819	4:15	7:00
Sta. 820	6:44	7:00
Overall	**4:09**	**N/A**

This suggests that the calls for service are within those areas for which the City and Rural / Metro have developed fire response capability (i.e., the response areas are designed to overlap those places where most of the calls for service occur).

- **The extensive distribution of automated fire sprinkler systems in buildings in the City allows the City to operate with a 12-minute initial full response standard rather than a common eight (8) minute standard.** MAXIMUS believes that the widespread extent of sprinkler systems throughout the City provides it with additional time to initiate a full structure fire response. MAXIMUS defines (in conjunction with NFPA 1710) a full structure response as one in which 12 people can be on–scene within a specified period of time.

- **A standard of 12 minutes allows Rural / Metro to delivery 12 firefighters on scene almost three quarters of the City.** More than 73% of the City can be reached by 12 firefighters in less than 12 minutes. This additional time is gained through the heavy use of fire sprinkler systems throughout the City. The project team's analysis of the deployment of resources in the City also shows that only 49% of the City can be reached by 12 firefighters in less than eight minutes (this is the national standard initial response time).

- **The addition of the two new stations planned by the City will have the greatest impact in the immediate response area.** The project team also evaluated the impact of the introduction of two new fire stations (817 and 827) on the larger system and found that this would be minimal in the near term. The project team found that either the territory of these two stations links with existing areas or that the road network does not yet accommodate the new station.

- **The City also benefits from the provision of firefighter trained emergency medical personnel provided under the separate EMS contract.** The project team was also able to include the firefighter trained EMS personnel in our response analyses. The City of Scottsdale benefits from the inclusion of these personnel – even though they are not directly paid for under the fire services contract. In fact, these personnel are compensated under the emergency medical services contract that the City has with Rural / Metro.

- **The City of Scottsdale should support a move to set three as the minimum staffing for all fire apparatus operated by Rural / Metro.** The project team recommends that the City and Rural / Metro work to eliminate the use of two–person fire companies in the City. Currently there are four such units in the City (Engine 808, Engine 809, Ladder 811 and Engine 811). The project team recommends a move to dedicated three–person staffing on all units. This recommendation could be phased in as part of the budget process. The total annual cost for making this transition is approximately $500,000.

- **Current field command approaches, including the incident command system, appear to be at the national standard.** The project team examined the current policies and procedures relating to the management and command of the resources in the field. These command structures are most important when the incident becomes large and complex. These systems are designed to maximize the safety, accountability and management of personnel and resources.

- **Several significant issues exist with respect to the provision of training by Rural / Metro.** These include the following:

  - Training can be enhanced through closer coordination between the Labor / Management committee and the OSHA coordinator position.

  - The project team has also recommend increases in the training staff by a Captain position to coordinate training for on–duty staff.

  - Rural / Metro needs to develop clear goals and objectives for training and to develop approaches to evaluating the efficacy of the training.

  - Rural / Metro needs to adopt a more structured approach to the delivery of on–duty training. This should include central development of training curricula and decentralized provision of that training. The project team has provided an outline for this training program – however, adoption of an already developed local training program (e.g. Phoenix Fire Department or other

local agency) as long as it follows the basic approach outlined in this report.

- **Management of the fire service could be enhanced by the increased use of data and management systems.** The project team recommends that Rural / Metro take steps to improve the way in which information, technology and other systems are used to provide managers (at all levels) with information to enhance their ability to make decisions and so on.

- **Rural / Metro has taken a number of steps to ensure that vehicle maintenance operations result in well maintained apparatus and low downtime for emergency vehicles.** The project team examined the services of the vehicle maintenance operations of Rural / Metro. Our evaluation shows a unit which is focused on providing preventive maintenance using innovative techniques (mobile units provide maintenance in the field) and to minimizing the shop time for each emergency unit. This is made all the more important given the long travel times in the City.

The table, below, provides a summary of the major recommendations in the report, with recommended timing and the associated cost estimates.

RECOMMENDATION	TIMING	COST
Make no additional changes to the station network beyond current plans to add two stations.	N/A	$0
Bring all fire apparatus staffing to a minimum of three personnel at all times. This includes the following units: Engine 808, Engine 809, Engine 811 and Ladder 811.	Could be phased.	$500,000
Take steps to enhance communication between the City and Rural / Metro.	Short term.	$0
Enhance the delivery of fire service training. Add an additional staff position to coordinate in–station training, develop a formal training program (for consistent training in all stations), etc.	Short term.	$0
Increase focus on data as a management tool.	Short term.	$0
Re–consider the response time standards established for all areas of the City.	Short term.	$0

The report, that follows, provides more detailed information regarding each of the elements that have been summarized in this section.